APPARATUS AND METHOD FOR RE-SENDING DATA ON COMMUNICATION CHANNELS

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Abstract of the Disclosure

A multi-channel transmission system that provides dynamic mapping of data to channels is described. In one embodiment, a packet of data to be transmitted is broken

10   up into a number of fragments. Fragments are loaded into transmit buffers. Active buffers are indicated by bits in an active-fragment register and active channels are indicated by bits in an active-channel register. A transmit buffer to channel mapping is provided by multiplexers. The multiplexers are controlled by a channel mapping table that uses the data in the active-fragment register and the active-channel register to

15   decide which transmit buffers are mapped to which channels. Each transmit buffer can be simultaneously mapped to more than one channel in order to allow the same data to be simultaneously transmitted on more than one channel, thereby increasing the likelihood that the data will be successfully transmitted even if some of the channels are rendered inoperative. In one embodiment, an acknowledgement sent by a receiver

20   indicates which channels are operative and which channels are inoperative.

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